

A
MICRO
PROGRAMMABLE
TERMINAL
from
The House of Beehive

SUPER BEE



Beehive Terminals 870 West 2600 South, Salt Lake City, Utah 84119 • (801) 487-0741 TWX 910-925-5271

WE INVITE YOU TO COMPARE
COST and FEATURES of the
SUPER BEE

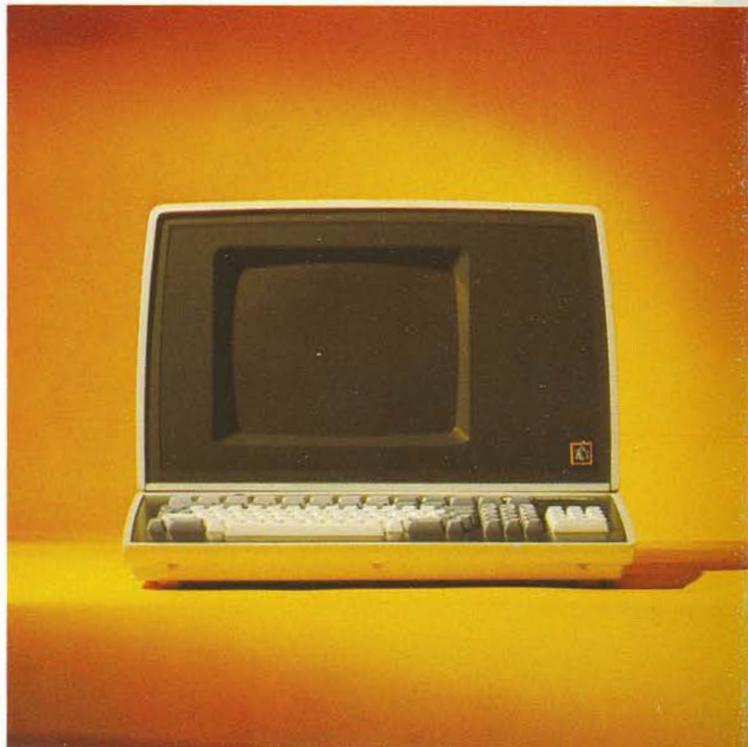
with any terminal on the market!

These features are
STANDARD
on the Beehive **SUPER BEE:**

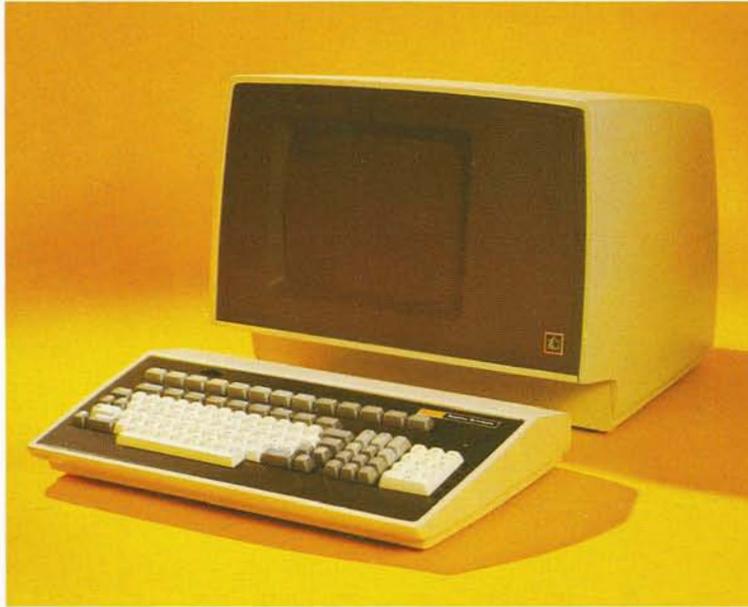
- ADDRESSABLE CURSOR/CURSOR SENSE
- CONVERSATIONAL or BLOCK MODE
- DATA COMPRESSION TECHNIQUE
- PROGRAM ENTRY MODE
- SINGLE KEY ENTER FUNCTION
- PROTECTED FIELD FORMATTING
- TYPEWRITER TAB PHILOSOPHY and BACK TAB
- FOUR LEVEL VIDEO
- BAUD RATE TRANSMISSION to 9600 Bps.
- PRINTER OFF/ON LINE MODE
- UPPER AND LOWER CASE CHARACTER GENERATION
- PARITY SELECTION
- 2048 CHARACTER DISPLAY
80 CHARACTERS X 25 LINE
- ANSII 96 KEY KEYBOARD, detachable
- LIGHTED MODE INDICATORS
- 10 KEY NUMERIC PAD



"Sure can't beat the best!"



The Beehive SUPER BEE



The Beehive SUPER BEE, a low-cost operator controlled "INTELLIGENT" computer terminal, unmatched in its price/performance ratio, achieves unprecedented user applications through the use of its own BUILT-IN MICRO-PROCESSOR.

This unique *MICRO-PROCESSOR* terminal is ideally suited to a wide scope of special applications ranging from use in airline reservation systems to educational instruction.

The **SUPER BEE**, from THE HOUSE OF BEEHIVE, is a result of four years of field analysis covering the needs of terminal users, ranging from the medical profession to educators. Its *LOW COST* is achieved by utilizing advanced state-of-the-art design and manufacturing techniques.

Besides the benefits of *FLEXIBILITY*, *ECONOMY* and *EFFICIENCY*, the design of the **SUPER BEE** adds a long list of advantages and features not found in comparable terminals at greater costs.

The **SUPER BEE'S** extreme flexibility is made possible by the use of its built-in input/output micro-

processor and read only program memory. This feature allows large volume users to change the program ROM — thus modifying the terminal to communicate using almost any code structure or polling sequence. This convenient method of making a change in the input/output configuration or the encoding of the function eliminates the necessity of redesigning the logic of the terminal. With the **SUPER BEE** all that may be involved is the replacement of the ROM . . . a feature that is one key to the **SUPER BEE'S** modest cost, and makes it a natural for large volume O.E.M. customers.

By including a special modified keyboard, made possible through the detachable keyboard feature, the **SUPER BEE** can fill the needs of virtually all users. Various functional options are available among which are *EDIT*, *POLLING* and *HIGH RESOLUTION* video display (7 x 9 dot matrix).





The retrieval of information by executives at all levels exemplifies both the *ECONOMY* and *EFFICIENCY* that is demanded by the management of all types of successful businesses.

I/O FUNCTIONS

TRANSMISSION MODES:

- (A) Character Mode — Interactive operation to the computer, in the Character Mode as a key is pressed the desired code is transmitted to the computer.
- (B) Block Mode — Data is prepared, corrected and edited off line and subsequently transmitted to the computer as a block of data. Data transmission is accomplished with the utilization of a single operator controlled key. The Enter Key writes an ETX, returns to home or to a previous ETX, changes mode to ON LINE and then initiates block transfer of data.

SYNCHRONOUS OR ASYNCHRONOUS OPERATION:

Transmission rates are switch selectable permitting operation up to 9600 baud.

PSUEDO POLLING:

Depression of the Enter Key in block mode will transmit a code to the computer as a request for service. When the computer is ready for data transmission it returns the appropriate character initiating the block transfer of data from the terminal.

DATA COMPRESSION:

When data compression is desired the computer fills the SUPER BEE memory with delete codes. As the operator enters data the delete codes are overwritten by text. During block transfer of data to the computer only the operator entered data is transmitted. The remaining delete codes are not transmitted.

PRINTER CONNECTION:

A separate printer connector is provided on the SUPER BEE. By using the *PRINT ON LINE* key on the keyboard, all incoming data from the computer can be routed to the display and to the printer simultaneously, providing they are both operating at the same baud rate. A separate print oscillator is provided so that data can be transmitted to the display at one baud rate and then retransmitted to the printer at another baud rate without operator intervention. Most serial ASCII printers can be used with the SUPER BEE.

PROGRAMMABLE I/O:

A micro-processor is used in the I/O structure of the SUPER BEE. The program for this processor is stored in Read Only Memorys, ROMS. Through the use of the I/O micro-processor unit, this terminal offers a maximum in flexibility. By changing the program ROMS this terminal can be made to communicate using almost any code structure or polling sequence. The changes to the ROMS is a factory modification.

DISPLAY FUNCTIONS

FOUR LEVEL VIDEO:

- (1) Normal display is white characters on black background
- (2) Reverse video is black characters on white background
- (3) Blinking white characters on black background
- (4) Blinking black characters on white background

These levels of video display can be used to indicate alarm or status conditions.

UPPER/LOWER CASE DISPLAY STANDARD:

All 96 USASCII characters are displayed as standard. In program entry mode additional characters are displayed:

- 32 control codes
- 96 escape sequence control code displayed as reversed video characters

SCROLL:

As the display is filled and additional characters are written on the display, the display scrolls up one line at a time. By utilizing the *SCROLL UP* and *SCROLL DOWN* keys on the keyboard the unit will scroll either up or down a line at a time. Utilization of the *NEXT PAGE* or *PREVIOUS PAGE* key will cause the unit to scroll 25 lines at a time either up or down.

CURSOR CONTROLS

COMPLETE CURSOR CONTROL:

Cursor up, down, right, left and home controls are provided for operator convenience. These keys are color highlighted on the keyboard.

HORIZONTAL TABS:

Similar to a typewriter, tabs can be set in any of the 80 column positions. The *TAB* key causes the cursor to skip to the next tab location. In format mode this key causes the cursor to skip to the beginning of the next unprotected field.

ADDRESSABLE CURSOR:

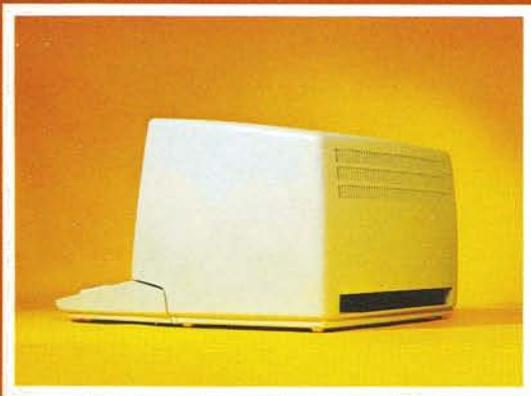
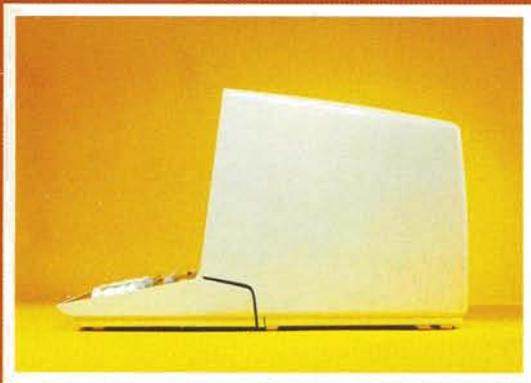
This allows the computer to position the cursor by column number and line number.

CURSOR SENSE:

This allows the computer to read back, from SUPER BEE, the present cursor location. The present cursor location is transmitted back to the computer as line number and column number.

BACK TAB:

This key causes the cursor to skip back to the previous tab position. In format mode this key causes the cursor to skip back to the beginning of the previous unprotected field.



“Great!
No matter how
you look at it!”



OPTIONS

EDIT:

This option allows the operator to perform editing functions with the SUPER BEE.

- (A) Insert Character — In this mode a character key depression will cause the included character to be inserted on the cursor's line according to the cursor's position.
- (B) Delete Character — This key causes one character to be removed at the cursor location and the characters to the right to be moved left to fill vacated space.
- (C) Insert Line — When this key is used, a new line is opened up. The whole line which the cursor is on is shifted down.
- (D) Delete Line — When this key is used, the whole line which the cursor is on is taken out of memory. Lower lines are scrolled up to fill the space.
- (E) Page Edit — While in this mode character insert and delete are on a page basis. When out of this mode, character insert and delete are on a line basis. If the unit is in the page edit mode, as characters are inserted, all characters to the right of the cursor are moved right one position. Space codes on that line are wrapped around to the next line and none are thrown away.

SPECIAL FUNCTION KEYS:

Included as part of the edit option are 8 special keys which can be utilized as a customer desires. These keys, when depressed, send a special code to the computer. This allows the user to specialize the keyboard for his particular application.

POLLING:

This option allows up to 95 terminals to be placed on a single data line. Each terminal has its own address, and the computer can address any terminal it wishes so that data can be received or transmitted to a particular terminal.

Associated to the polling option is a cassette interface. Under computer control, the cassette may be used to store large amounts of data. This data can then be transferred back to the display. Most serial RS232 ASCII cassettes may be added.

HIGH RESOLUTION:

This option changes the monitor from a P4 phosphor 12" diagonal monitor to a high resolution P39 phosphor 15" monitor. The appropriate timing is incorporated into the terminal to provide for a 7 x 9 dot matrix display.

SUPER BEE

standard keyboard layout

The alphanumeric portion of the keyboard is ANSI standard (logical paired). The SUPER BEE detachable keyboard includes a standard numeric pad and 6 lighted switches to indicate modes which have been selected.



SUPER BEE

keyboard layout with edit option

This edit option keyboard has eight special function keys whereby a user can initiate a variety of eight different coded functions.





In any terminal environment the detachable keyboard proves to be an added convenience especially where space is at a premium.



Time saving function of the SUPER BEE is demonstrated by this corporate secretary retrieving financial information for an in-house time sharing system.

**I challenge them all!
I'm functional!
I'm flexible. I'm efficient.
I'm economical.**

**I'm
SUPER BEE**

from The House of Beehive.



The Beehive **SUPER BEE** offers the terminal user the combination of flexibility, economy and efficiency not found in other CRT terminals. This low-cost INTELLIGENT terminal has been especially designed to fill the needs of almost all terminal users through the use of its factory programmable input/output micro-processor unit. By changing the program ROM, the **SUPER BEE** can communicate using almost any code structure or polling sequence. With a detachable keyboard as an integral part of the design, maximum convenience is afforded the operator.

The above are but a few of the many advantages of purchasing the SUPER BEE.

May we suggest you send in your order today.



SUPER BEE SPECIFICATIONS

DISPLAY FORMAT

25 lines x 80 characters

DISPLAY SIZE

Approximately 6.75" high x 9" wide

CRT SIZE

12 inch rectangular

CHARACTER SIZE

Approximately 0.20" high x 0.080" wide

CHARACTER TYPE

5 x 7 dot matrix — Two dot spacing between characters white on black

THREE LEVEL VIDEO

Blink normal — Reversed video, blinking reversed video

CHARACTER SET

128 Plus

CHARACTER GENERATION

MOS ROM

REFRESH RATE

60 Hz

REFRESH MEMORY

MOS shift register

PAGE OVERFLOW

Upward scroll, no loss of data until data overwrites the End of Memory, then first line data is lost

CURSOR CONTROL

Left, Right, Up, Down, Home, Carriage Return, Line Feed, New Line, Format Search, Tab, Back Tab, SPOW

CURSOR ADDRESS

By column and line

CURSOR SENSE

Position transmitted by column and line

COMMUNICATIONS INTERFACE

Serial RS232C

PRINTER INTERFACE

Serial RS232C Receive only

PRINTER MODE

On line/off line

INTERFACE CONTROLLER

LSI Micro-Processor/MOS ROM program

TRANSMISSION RATE

Switch selectable to 9600 baud

TRANSMISSION OF DATA

Data compression selectable

TRANSMISSION MODE

Full duplex, half duplex, 11 bit at 110 baud asynchronous, 10 bits at higher baud rates, switch selectable to 8 bit synchronous

PARITY

Asynchronous — Even/None
Synchronous — Odd/None

MESSAGE MODE

Single Key Enter Function

PAGE MODE

Single Key Enter Function

CHARACTER MODE

Character by character transmission

CONTROL MODE

Escape sequence mode of control

PROGRAM ENTRY MODE

Generation of control sequences is not acted upon but stored and displayed

FORMAT MODE

Protected field

ERASE MODE

Erase to end of line, erase to end of memory, clear

BELL

Audible alarm when control G is received or 72nd character of line

KEYBOARD

Custom designed, detachable module, 91 key, human engineered, color coordinated, 6 lighted mode indicator switches, N key roll over, auto repeat, logically paired ANSI configuration. Keyboard may be remotely disabled or enabled.

INPUT VOLTAGE

115 VAC \pm 10% 50/60 Hz
230 VAC \pm 10% 50 Hz

OPERATING TEMPERATURE

5° C-40° C after warm-up

TERMINAL SIZE

Monitor 20" W x 15" H x 15" D —
Weight approx. 55 lb.
Keyboard 20" W x 3½" H x 10" D —
Weight approx. 10 lb.

TERMINAL FINISH

Textured vinyl

OPERATOR CONTROLS

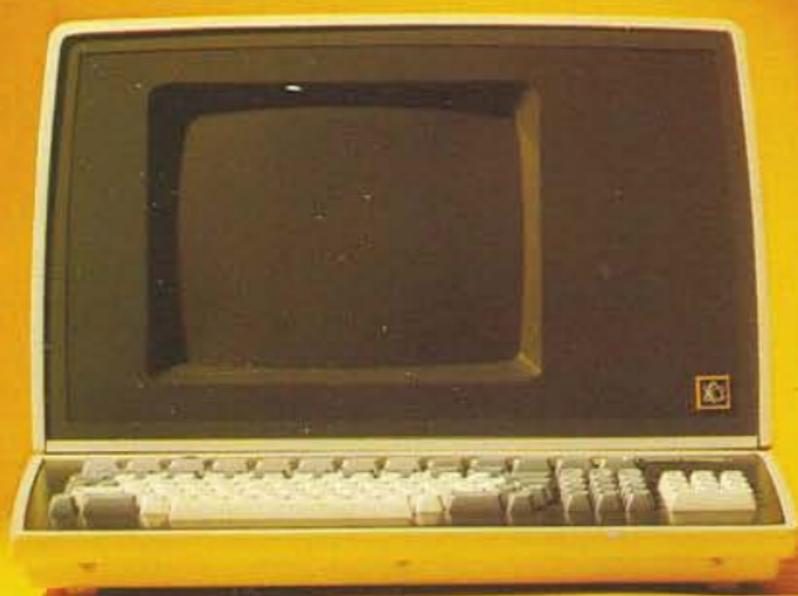
Keyboard — Brightness
Rear Panel — Full duplex/half duplex, lower case enable, I/O baud rate, contrast, power

Specifications subject to change without notice



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AD-20A
Printed in U.S.A.



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Salt Lake City, Utah 84119

SUPER BEE we need you!

- Please send price and delivery information
- Please have your Sales Manager arrange a demonstration
- I have an immediate application

Name

Title

Address

City

State

Zip Code

Phone

compare the Beehive
SUPER BEE
feature for feature with
any CRT terminal on the
market. We are confident
that you'll find **none** can
compare with the price/performance
ratio of the **SUPER BEE**

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